

**METHOD AND DEVICE FOR PROGRAMMING AN ELECTRICALLY
PROGRAMMABLE NON-VOLATILE SEMICONDUCTOR MEMORY**

Abstract of the Disclosure

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A device and method for programming an electrically programmable memory applies at least one first programming pulse to a group of memory cells (**MC1-MCk**) of the memory, accesses the memory cells of the group to ascertain a programming state thereof, and applies at least one second programming pulse to those memory cells in the group whose programming state is not ascertained to correspond to a desired programming state. A voltage applied to a control electrode of the memory cells is varied between the at least one first programming pulse and the at least one second programming pulse according to a forecasted change in biasing conditions of the memory cells in the group between said at least one first and at least one second programming pulses. Undesired over-programming of the memory cells is thus avoided.

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